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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,462	07/16/2003	Shigeo Orii	1538.1039	7714
21171	7590	11/23/2007		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER DO, CHAT C	
			ART UNIT 2193	PAPER NUMBER
			MAIL DATE 11/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/619,462

Applicant(s)

ORII, SHIGEO

Examiner

Chat C. Do

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 October 2007 and 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 2-24, 26-29 and 31-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 25 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 07/16/03; 10/05/05; 05/17/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This communication is response to the Election/Restriction dated 10/24/2007.
2. Claims 1-34 are pending in the application. Claims 1-2, 7, 19, 22, and 25-34 are independent claims. In the response to the Election/Restriction, the applicant elected Species I claims 1, 25, and 30 without transverse, thus claims 2-24, 26-29, and 31-34 are withdrawn from consideration. This Office action is made non-final.

#### *Election/Restrictions*

3. Applicant's election without traverse of Species I claims 1, 25, and 30 in the reply filed on 10/24/2007 is acknowledged.
4. Claims 2-24, 26-29, and 31-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species II-V, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/24/2007.

#### *Drawings*

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of independent claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

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sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

7. The abstract of the disclosure is objected to because the abstract is written less than 150 words in length. Correction is required. See MPEP § 608.01(b).

8. Claims 1, 25, and 30 are objected to because of the following informalities:

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Re claim 1, the applicant is advised to amend the phrase "among processings" since it is unclear.

Re claims 25 and 30, these claims have similar objection as cited in claim 1. Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 25, and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Re claim 1, the definitions of the load balance contribution ratio, virtual parallelization ratio, and parallel performance impediment factor contribution ratio are not supported in the original specification. The specification, particularly pages 19-20, does disclose these ratios mathematically but the corresponding mathematical expressions have different meaning compare to the definitions of ratios in the claim. In another words, the definitions in the claims would give different expression.

Re claims 25 and 30, these claims have similar rejection as cited in the claim 1 since they all have similar limitations.

*Claim Rejections - 35 USC § 101*

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 1, 25, and 30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 25, and 30 cite a method, medium, and apparatus for calculating an efficiency parameter of parallel computer in accordance with a mathematical algorithm. In order for claims to be statutory, claims must either include a practical/physical application or a concrete, useful, and tangible result. However, claims 1, 25, and 30 merely disclose steps/components for calculating an efficiency parameter without further disclosing a practical/physical application or a useful and tangible result since the claims appear to preempt every substantial practical application of the idea embodied by the claim and there is no cited limitation in the claims that breathes sufficient life and meaning into the preamble so as to limit it to a particular practical application rather than being so broad and sweeping as to cover every substantial practical application of the idea embodied therein. Further, claim 25 discloses a software embodied on a medium wherein the medium can be digital signal as cited in page 13 lines 5-7 of specification. Claims 30 is a software pro sel since all the calculators are the software modules for performing calculation. Therefore, claims 1, 25, and 30 are directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art.

Re claim 1, the admitted prior art discloses in pages 1-3 of the original specification a computerized parallel efficiency calculation method for calculating a parallel efficiency of a parallel computer system (e.g. pages 1-2, particularly lines 7-15 page 2), comprising the steps of: calculating a load balance contribution ratio representing a load balance degree between respective processors included in said parallel computer system (e.g. any parameter within expressions 1-2 page 2); calculating a virtual parallelization ratio representing a ratio, with respect to time, of a portion processed in parallel by said respective processors among processings executed in said parallel computer system (e.g. any parameter within expressions 1-2 page 2); calculating a parallel performance impediment factor contribution ratio representing a ratio of a processing time of a processing portion corresponding to each parallel performance impediment factor to a total processing time of all said processors included in said parallel computer system (e.g. any parameter within expressions 1-2 page 2); and calculating and outputting to an output device, a parallel efficiency by using said load balance contribution ratio, said virtual parallelization ratio, and said parallel performance

impediment factor contribution ratio (e.g. expressions 1-2 in page 2, generally, the “supposed” claimed invention is expressed in expressions 5-7 page 20, but these expressions are just “mathematical” manipulation of original expressions 1-2 as seen in page 19; the result of  $E_p(p)$  in page 20 is exactly the same as the result of  $E_p(p)$  in page 2, more or less it is just mathematical expression manipulation).

Re claim 25, it is software embodied on medium having similar limitations cited in claim 1. Thus, claim 25 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 30, it is an apparatus having similar limitations cited in claim 1. Thus, claim 30 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 7,024,667 to Orii discloses a parallel efficiency calculating method and apparatus.
- b. U.S. Patent No. 5,684,947 to Horie discloses a performance evaluation method and device thereof for a parallel computer.
- c. U.S. Patent No. 7,039,906 to Trelewicz et al. disclose a compiler for enabling multiple signed independent data elements per register.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on M => F from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do  
Examiner  
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November 20, 2007

A handwritten signature in black ink, appearing to be 'Chat C. Do', written over a horizontal line.